Attorney's Docket No.: 09765-011002

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant	: David M. Baggett	Art Unit	: 3629
Serial No.	: 09/877,159	Examiner	: Janice A. Mooneyham
Filed	: June 8, 2001	Conf. No.	: 1014
Title	: TECHNIQUE FOR PRODUCING CONSTRUCTED FARES		

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

TRANSMITTAL LETTER

Please vacate the Reply Brief filed on December 29, 2006 in favor of the accompanying Brief, which is identical to that filed on December 29, but which includes the Request for Oral Hearing, mentioned in the transmittal but not included with the Reply filed on December 29.

No fee is believed due, other than the request for Oral Hearing Fee. If any other fees are due, please apply that fee and any other charges or credits to deposit account 06-1050.

Respectfully submitted,

Date: 1/3/2007

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REPLY BRIEF

Pursuant to 37 C.F.R. § 41.41, Applicant responds to the Examiner's Answer as follows:

At the outset the examiner contends that:

> **Applicant argues that even if the cited references show the various elements suggested by the Examiner, in order to support a conclusion that it would have been obvious to combine the cited references, the references must either expressly or impliedly suggest the claimed combination or the Examiner must present a convincing line of reasoning as to why one skilled in the art would have found the claimed invention obvious in light of the teachings of the references. [Examiner's Answer page 11]**

The examiner by leading off the Examiner's Answer with this quotation, mischaracterizes Appellant's argument. Specifically this language is found in the authority portion of Appellant's Appeal Brief and is cited by way of explanation of the precedents binding on the examiner to establish prima facie obviousness.[1]

In the event that the Supreme Court modifies the motivation aspect of a test for obviousness, Appellant contends that it would have no effect on the arguments made in Appellant's Appeal Brief, since the thrust of Appellant's arguments were that one or more of the

[1] As of the writing of this Reply Brief, a decision has not yet been reached by the Supreme Court in KSR International v. Telefex, Inc. et al. Appeal No. 04-1350 in which Petitioner KSR is arguing that the Federal Circuit's test of obviousness specifically directed to motivation is incorrect and in conflict with the Supreme Court's own precedents such as Graham. v. John Deere Co., 383 U.S. 1 (1966).

elements of Appellant's claims were neither described by nor suggested by any combination of the cited prior art. While, Appellant does clearly attack the motivation used by the examiner to combine the teachings of the references, with regard to claim 1, it is also clear from the arguments in the Appeal Brief that no combination of the cited references teaches particular features of the claims.

The examiner states that in interpreting and analyzing claim 1, the Examiner used applicant's background and Construction Processing Logic published on April 9, 1992, Airline Tariff Publishing Company (ATPCO) and Construction Processing logic Published September 15, 1994, and Airline Tariff Publishing Company Construction Manual published May 22, 1995 to provide guidance in interpreting claim language.

The Examiner proceeds to "interpret" claim 1 by reproducing features from claim 1 and citing passages from Gardner corresponding to the claim's features. Appellant will deal with two of the features from claim 1, pre-processing and searching the database for published fares for gateway cities.

The examiner contends that Gardner discloses: " ... per-processing by: determining interior (minor) cities that appear with gateway (major, HUB) cities in arbitraries for an airline, the **fares**[2] being published amounts and an order (sic) set of two cites (sic) that extend published fares that include an amount for travel between two cities to provide a bi-directional market (page 1 of the applicant's specification. Figure 7 of Gardner, Unpublished Fare Retrieval, Published Fare Retrieval, page 7, [0093-0102]).[3] Emphasis added.

It is evident that the examiner has not properly characterized either Appellant's admitted prior art or the prior art references cited. Indeed, the examiner states that a gateway is a major HUB. Appellant has not used the term "HUB." The examiner also states that: "The applicant's

[2] The examiner mischaracterizes this feature. The feature instead reads: "determining interior cities that appear with gateway cities in arbitraries for an airline, the **arbitraries** being published amounts and an order set of two cities that extend published fares that include an amount for travel between two cities to provide a bi-directional market." Emphasis added.

The specific feature is not fares but arbitraries, which by industry definition cannot be fares.

[3] Examiner's Answer pages 13-14

specification states that a gateway is a major city and an interior city is a minor city (page 1)."[4] However, this quote is taken not from a definition of a gateway, but rather from a definition of an arbitrary. The exact quotation is: "However, unlike cities in a published fare (which establish a bidirectional market), the cities in an arbitrary are ordered: the first is the gateway (or major) city, and the second is the interior (or minor) city."[5]

Neither page 1 of Appellant's specification nor Figure 7 of Gardner, Unpublished Fare Retrieval, Published Fare Retrieval or paragraphs 0093-0102 disclose pre-processing by "determining interior cities that appear with gateway cities in arbitraries for the particular airline, arbitraries ... , "as recited in claim 1. The examiner acknowledges on that:

> **Unpublished fares are constructed as follows (see ATPCO Principle of Fare Construction and applicant's specification pages 1-2):**
> **Add-on + published fare = unpublished fare**
> **Published fare + add-on = unpublished fare**
> **Add-on + published fare + add-on = unpublished fare**[6]

However, this teaching neither describes nor suggests the claimed pre-processing, i.e., "determining interior cities that appear with gateway cities in arbitraries for an airline, the fares being published amounts and an order set of two cites that extend published fares that include an amount for travel between two cities to provide a bi-directional market." The pre-processing teaching is totally missing from the cited art.

Gardner's description teaches to store unpublished fares and retrieve them. However, Gardner neither discloses a technique for constructing the unpublished fares nor discloses any process that incorporates the claimed pre-processing discussed above.

As mentioned in the Appeal Brief and in the Summary portion of Appellant's specification, the fare construction process produces "constructed fares" in a computational efficient manner because branching factors at each loop level are generally small, because there are relatively few gateway cities for a given interior city. This is not recognized by any of the references or Applicant's Admitted Prior Art.

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[4] Examiner's Answer page 15.
[5] Appellant's specification page 1.
[6] Examiner's Answer page 15.

In contrast, Gardner appears to disclose the so-called "The Unpublished Fares Product" available from Airline Tariff Publishing Company (ATPCO).

Given the absence of preprocessing in Gardner and the secondary prior art of Applicant's admitted prior art and the ATPCO references, no combination of this art could inherently suggest the feature of "searching a database having published fares for gateway cities corresponding to the determined interior cities appearing in the arbitraries"[7] since there are no teachings that would construct a database of gateways based on interior cities appearing in the arbitraries.

Additionally, Gardner even if it was modified by the secondary prior art could not inherently include: "applying an arbitrary corresponding to one of the interior cities to a published fare involving one of the gateway cities that corresponds to the determined interior cities appearing in the arbitraries to produce a constructed fare." (Emphasis supplied) since again there are no teachings to provide a database or otherwise of interior cities appearing in the arbitraries.

The examiner quotes extensively from paragraphs [0096-0102] of Gardner. However none of these teachings are directed to a process to provide "constructed fares." Instead, these paragraphs deal with the process of combining fares with itineraries (flights) in order to price a ticket.

The examiner also argues that:

> **Gardner discloses searching databases for published fares and unpublished fares. A published fare is defined in APTCO as an amount published for use in pricing air transportation from one city to another city. An unpublished fare is the combination of an add-on amount and a published fare amount resulting in an amount used in pricing air transportation from one city to another city. Unpublished fares are also referred to as "through fares," "constructed fares" and "behind point fares" (page 58 of ATPCO). The Examiner asserts that Gardner does not explicitly disclose arbitrary fares but combined Gardner with ATPCO and the applicant's admitted prior art to reject the claim.[8]**

[7] The examiner mischaracterizes this feature of claim 1 referring to the feature as:
searching a database having published fares for gateway (major, HUB) cities corresponding to the determine interior (minor) cities appearing in the fares (Gardner Figure 7b - 8a, page 7 [0095-0097]).

The specific feature is not fares but arbitraries, which by industry definition cannot be fares.

[8] Examiner's Answer page 17

With all due respect, this quotation vitiates the examiner's rejection, since the whole point of claim 1 is to claim a technique to make (i.e., produce) "constructed fares" and what the examiner readily admits above is that Gardner discloses searching databases for unpublished fares, not a process for making the unpublished fares.

The examiner concludes in analysis of claim 1 that:

> **APTCO discloses arbitrary fares as an amount published for use only in combination with other fares for the construction of through fares, also referred to as "proportional fare," "basing fare" or "add-on fare (page 58)." ATPCO also discloses addons or arbitrary fares as being bidirectional and that the first city displayed is the gateway (page 60). ATPCO further discloses add-on plus published fare equals unpublished or constructed fares (page 58). Applicant discloses in the specification that the cities in an arbitrary are ordered, the first is the gateway (or major) city, and the second is the interior (or minor) city (page 1 of the specification). Thus, the Examiner asserts that determining interior cities that appear with gateway cities in arbitraries would be looking for the gateway cities that are listed with the interior cities and searching a database for such would be an add-on inquiry as disclosed in ATPCO (page 60 (D).[9]**

Appellant conceded in the background that APTCO disclosed "arbitraries" as an amount for use only in combination with published fares for the production of constructed fares, and also disclosed add-ons or arbitraries as being ordered in that the first city is the gateway and the second is the minor or interior city. Indeed, these are industry standard terms to denote certain ATPCO data structures. However, the examiner is in error in construing add-ons or arbitraries as fares. Nowhere in ATPCO can the examiner point to a teaching that arbitraries are fares or that arbitraries are bi-directional, arbitraries are clearly ordered.

Appellant also concedes that ATPCO discloses that an add-on or an arbitrary can be combined with a published fare to provide a constructed fare. However, the examiner erroneously concludes that: determining interior cities that appear with gateway cities in arbitraries would be looking for the gateway cities that are listed with the interior cities and searching a database for such would be an add-on inquiry as disclosed in ATPCO (page 60 (D)." ATPCO page 60 D is reproduced below:

```
     4) WUSA arbitraries combine with WHFP fares.
     5) WARBSAT/AARBSAT arbitraries combine with SAAR2 fares.
D) Addon Inquiry
     1) Viewing Individual Addons and Markets
     2) PFK4 Detail Display
```

60

[9] Id.

"D" merely teaches viewing individual Add-ons and Markets. "D" does not suggest much less describe the claimed pre-processing. Claim 1 requires not merely viewing individual Add-ons, but preprocessing by determining interior cities that appear with gateway cities in arbitraries for an airline... ; and searching a database having published fares for gateway cities corresponding to the determined interior cities appearing in the arbitraries. No combination of ATPCO with Gardner suggests this processing.

Claim 2

The examiner argues that:

> **The Examiner notes that the claim language only require that a table be accessed. The claim language only require a table to be obtained, acquired, or read. There is no other positive recitation of anything else being performed on the information in the table once it is accessed. There is no selection process or searching step to take the information from the table and make a list. Thus, unless the table is the list, it is not clear what applicant is claiming in this step other than accessing a table.**[10]

Appellant disagrees that claim 2 only requires that a table be accessed. One of ordinary skill in the art reading claim 2 would understand that claim 2, being dependent from claim 1, and further limiting the feature of determining interior cities uses accessing a hash table indexed by an airline, interior-city pair to return a list of gateway cities for which an airline has arbitraries that specify the interior city. Therefore, the result required by claim is to return a list.

Therefore, one of ordinary skill in the art would understand that the claimed hash table is an example of a mechanism used in determining the interior cities feature of claim 1.

The examiner during prosecution had ample opportunity to furnish a rejection under 35 U.S.C. 112, second paragraph, but did not. Equally important, accessing a hash table in a computer system is a physical act and returning a list is also a physical element; therefore the examiner must give patentable weight to the claimed element and cannot simply dismiss the element.

The examiner also argues that Gardner discloses a hash table because Appellant did not provide any meaningful definition of a hash table. The Examiner uses the "Microsoft Computer

[10] Examiner's Answer page 24.

Dictionary, 5th edition to define the term "hash" as "to convert an identifier or key, meaningful to a user, into a value for location of the corresponding data in a structure."

The examiner concludes that: "based on this definition, searching the databases disclosed in Figures 7a and 7b of Gardner to return all possible combinations of trip construction is in fact disclosing this feature [0097]."[11]

Appellant disagrees with this entire line of reasoning. First, while Appellant does not specifically define "a hash table," Appellant contends that this would be readily known to one of ordinary skill in the art of computer software, and rather than provide a mere abstract definition, Appellant teaches how to construct each of the claimed hash tables. For example on page 7, line 28 to page 8, line 4 Appellant states:

> The first hash table 37a is produced 32 by iterating over all arbitraries. For each arbitrary A, a hash table entry H for the arbitrary A's interior city is located (or produced, if it does not exist). The arbitrary A's gateway city is added to a hash table entry H gateway city list. A gateway city entry in the gateway city list indicates that it is possible to use an arbitrary to get from A's interior to A's gateway city. Once all arbitraries have been processed this way, duplicates are removed from all the lists of interior-cities.

In Appellant's specification, similar teachings are provided for constructing the second and third hash tables, as used in other of Appellant's claims.

As recognized by the Microsoft Computer Dictionary, the term "hash" has a specified meaning. However, Gardner does not mention "hash," for any purpose, much less "a hash table." Irrespective of what one calls the claimed "structure," the claim requires that the "table" is indexed by an airline, interior-city pair to return a list of gateway cities for which an airline has arbitraries that specify the interior city. Neither the claimed indexing of the claimed table nor that what is returned, a list of gateway cities for which an airline has arbitraries that specify the interior city, are disclosed by any combination of the cited references taken separately or in combination with Appellant's admitted prior art.

[11] Examiner's Answer page 24.

The examiner also argues that: "Gardner discloses databases which store data related to flight schedules for all carriers and a request received triggers identification of all possible flight connections, thus disclosing a value for location of corresponding data in a structure, the structure being a database [0047]."[12]

Appellant contends that the Examiner is in error on several counts. Paragraph 0047 from Gardner is reproduced below:

> **[0047] Flight availability system 44 includes a computing system (not shown) configured to operate with and access a database (not shown). The database stores data related to OAG flight schedules for all carriers, including service and non-stop/direct flight schedules. Furthermore, the flight database includes data on flight schedules, flight legs, and flight leg details. By using flight availability system 44, a request received from one of booking channels 24 triggers identification of all possible flight connections. Accordingly, the flight information is compared with connection flight information and tested against pre-specified connection rules to determine valid connecting flights. Local flight availability is supported via AVS messages**

Here, Gardner is not discussing unpublished fares, fare construction or constructed fares. Instead Gardner is discussing a database that stores data related to OAG flight. However constructed fares are not specifically related to the problem of flight scheduling. Flight scheduling deals with finding data on flight schedules, flight legs, and flight leg details in order to construct an itinerary, e.g., sequence of flights to get from point A to point B. However, this is not related to constructed fares. The so-called request received from one of booking channels 24 that "triggers identification of all possible flight connections" neither describes nor suggests how the data in the database is stored and indexed, and in any event does not "return a list of gateway cities for which an airline has arbitraries that specify the interior city.", as called for in claim 2, because certainly that database and in general any database disclosed in Gardner does not return a list of gateway cities for which an airline has arbitraries that specified the interior city.

The examiner on page 28 also argues that:

> **The applicant argues again that Gardner does not disclose fare construction as referred to in applicants admitted prior art or ATPCO. Gardner discloses (Figures 7a and 7b) fare**

[12] Examiner's Answer page 24

components, unpublished fares, published fares, and ATPCO rules. Gardner discloses unpublished fares. ATPCO states that an unpublished fare means the combination of an add-on amount and a published fare resulting in an amount used in pricing air transportation from one city to another. Unpublished fares are also referred to as constructed fares.[13]

Appellant contends that Gardner misses the thrust of the argument presented by Appellant. It is Appellant's contention that Gardner does not teach a fare construction process to construct the unpublished fares, as is used in the sense of ATPCO, namely a mechanism to combine published fares between gateways with an add-on or arbitrary. Assuming that Gardner's unpublished fares are constructed fares, possibly from ATPCO's, but Gardner itself does not generate the constructed fares.

Appellant, on the other hand, teaches a technique that produces constructed fares far more efficiently than that known in the cited prior art. Gardner's teachings of fare components and published fares are not relevant to whether Gardner teaches a process to produce constructed fares. Gardner teachings use the published fares, unpublished fares, fare components and so forth in an attempt to price a ticket. In essence, Appellant has provided a better way to produce the constructed fares that reside in Gardner's unpublished fares database.

Claim 3

The examiner contends that: "The Examiner notes that a table is presented in claim 2. However, there is no searching step, selection step, or determination step. Therefore, it is unclear how accessing a table would allow a list to be returned in constant time. Is the list the table itself?"[14]

Appellant responds that again the examiner had an opportunity to raise a 112, second paragraph issue, but chose not to. "Constant time" is a term of art well known to those in the field of computing, and use of hash tables. Nevertheless, it is clear from reading claims 2 and 3 that claim 2 ... returns "a list of gateway cities for which an airline has arbitraries that specify the interior city.", and claim 3 says that the "the list [is returned] in constant time." Appellant fails to see any confusion.

[13] Examiner's Answer page 26
[14] Examiner's Answer page 27.

For the most part the examiner repeats the argument as to why Gardner teaches a hash table, using the same reasoning as in claim 2, and for the same reasons, Appellant contends that the examiner is in error.

Claim 4

In the discussion of Claim 4, the examiner argues that: "First, the Examiner notes that the table is only accessed, not searched in claim 4. There is no selection process which returns a list separate from the table that is accessed. Therefore, the Examiner is interpreting the list to be a result from a database search unless the applicant is intending the list to be the table."[15]

Here again the examiner misconstrues claim 4. Claim 4 clearly recites that accessing the table returns a list. No such list is suggested in any combination of the cited art.

The remainder of the examiner's argument it is repetitive of the position that cites to the Microsoft Computing Dictionary and Gardner's discussion of OAG flight schedules. Therefore, in the interests of brevity, Appellant generally relies on the discussion above to refute the position and maintain that the examiner is in error.

The examiner also argues that: "ATPCO also discloses accessing construction tables and carriers having the option to control which city pairs they want ATPCO to construct (page 16 of ATPCO). ATPCO discloses a Gateway inquiry that list all arbitrary headline points (page 16)."[16]

Apparently the examiner refers to the following discussion:

```
D)   GATEWAY INQUIRY
     1) Lists all arbitrary headline points.
     2) Inputted via option (10) Gateway Update.
     3) Every carrier, regardless whether they construct, has to have the
        gateway table current because the arbitrary edit checks for valid
        gateways. If it is not in the table, the arbitrary will not edit.
     4) Enter mini menu information to access desired tariff/carrier/country
        pair.
     5) PFK9 will skip to the next tariff/carrier.
     6) PFK11 will print the tariff/carrier you are in.
```

Appellant contends that the "D) GATEWAY INQUIRY" discussion clearly teaches away from the claimed subject matter and clearly does not teach "accessing a hash table indexed by an airline, gateway pair to return a list of gateway cities that an airline publishes fares from the

[15] Examiner's Answer page 30.
[16] Examiner's Answer page 32

determined gateway to another gateway city. The mere fact that ATPCO teaches: "Lists all arbitrary headline points.", and requires that "3) Every carrier, regardless whether they construct, has to have the gateway table current because the arbitrary edit checks for valid gateways.", clearly describes the very cross tabulation referred to in Appellant's background which the claimed invention seeks to avoid.

Claim 9

Appellant's claim 9 recites: "... determining if an entry in a construction table was memoized before accessing the construction table; and if the entry was memoized, retrieving an answer from a store of memoized entries to apply to the constructed fare.

Claim 7 does not provide explicit support for claim 9, since claim 7 requires evaluating, whereas claim 9 limits "testing." However, this was a mere oversight and clearly both the examiner and the appellant understood claim 7 to recite testing.[17] Claim 9 is thus argued on that basis.

The examiner takes the position that:

> **The applicant states that Gardner does not teach a memorization (sic) procedure. However, the applicant is not claiming a memorization (sic) procedure in the claim language. The claim language only require that a determination be made as to whether a past query is stored and then retrieving an answer if the entry is memoized. If the entry is not memorized (sic), then nothing need be done. Therefore, if, as the applicant contends, Gardner does not disclose a memorized (sic) procedure, then a determination that an entry is not memorized (sic) would require that nothing be done.[18]**

Appellant disagrees that: "nothing needs to be done." Apparently, the examiner feels free to ignore limitations in this claim because the claim does not explicitly recite what happens if a memoized entry is not found. However, Appellant considers this to be improper. The examiner is not free to ignore limitations in a claim. Nonetheless, the claim recites a specific action: "determining if an entry in a construction table was memoized before accessing the construction

[17] See analogous claims 28 and 29.
[18] Examiner's Answer page 34

table." It is immaterial what happens if an entry is found or not found to distinguish claim 9 over the cited prior art, since clearly the cited prior art does not teach "memoization" or "determining if an entry in a construction table was memoized before accessing the construction table."

The examiner also argues that: "It is not clear how claim 9 would further limit an evaluation process of claim 7 either, It is not clear how retrieving an answer from memorized entries and applying it to the constructed fare further limits claim 7 or claim 1."[19]

Claim 9 requires that prior to evaluating, the method checks to determine if there is an entry that was memoized. As explained by Appellant in the specification, employing memoization would improve computational efficiency. So indeed claim 9 does limit claim 1 and claim 7. A reasonable construction of claim 9 is that applying arbitraries (claim 7) includes determining if an entry in a construction table was memoized before accessing the construction table (claim 9), if the entry was memoized, retrieving an answer from a store of memoized entries to apply to the constructed fare (claim 9) otherwise evaluating records from fare construction tables to determine whether the constructed fare is a valid constructed fare (claim 7). The answer in claim 9 is the constructed fare that was memoized.

Claim 11

Claim 11 is directed to construction of a three-component constructed fare, and distinguishes for analogous reasons as those given for claim 1.

Claim 12

In arguing Claim 12, the examiner contends that:

> **Claim 12 reads as follows:**
> **The method of claim 1 wherein the method is performed over all determined interior cities and all gateways.**
> **Applicant states that while applicant concedes that the prior art construction technique would publish a listing of constructed fares, applicant contends that to the extent that any purported combination of Gardner with applicant's admitted prior art and ATPCO use all possible minor cities and gateway cites to produce plural constructed fares, the prior art fails to perform the method over all determined interior cities and all gateway cities that correspond to the determined interior cities appearing in arbitraries.**

[19] Examiner's Answer page 35

Claim 12, actually recites that: "the method is performed over all determined interior cities and all gateway cities that correspond to the determined interior cities appearing in the arbitraries to produce plural constructed fares." Claim 12 is directed to producing all possible constructed fares using the technique of claim 1.

Claim 35

Appellant's arguments with respect to claim 35 were predicated on the use of the claimed elements in the context of determining international fares. Appellant referred the Board to Appellant's specification [page 4, line 24] to point out some of the specific advantages of Appellant's fare construction process and thus, because of this efficiency, the claimed fare construction process can be run on an "as needed basis," using the most current information. Appellant did not intend nor consider it necessary that these advantages were included in the claim as *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993), but rather afforded the Board the opportunity to understand the significance of the claimed algorithm.

Claim 42

The examiner contends that: "...The Examiner notes that the claim language only require (sic) a table to be accessed. There are no hash tables being produced or modified or used to produce fares. It is noted that the features upon which applicant relies to describe the claim limitations are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See In re Van Geuns, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993)."[20]

Again, Appellant has clearly argued in Appellant's Appeal Brief that claim 42 distinguishes because the combination of references fails to describe or suggest the features recited in the claims, namely instructions that cause a computer to ... access a first hash table by an airline, interior-city pair to return a list of gateway cities for which an airline has arbitraries that specify the interior city and ... access a second hash table by an airline, gateway pair to return a second list of gateway cities that an airline publishes fares from the determined gateway

[20] Examiner's Answer pages 40-41.

to another gateway city. Appellant has not attempted to incorporate teachings from the specification, but rather has set out some potential advantages, so that the Board need not view the claim in a vacuum.

Claim 52

Claim 52 generally combines features of preprocessing and accessing hash tables and are distinguished for reasons discussed of record. In arguing against the patentability of claim 52, the examiner takes the position that:

> **... The applicant states that Gardner does not suggest the preprocessing recited in the base claim 1. Applicant's specification nor (sic) drawings provide any meaningful or specific definition of the term preprocessing.**
> **MPEP 2111 requires that claims be given the broadest reasonable interpretation consistent with the supporting description. However, the claim must be interpreted in light of the specification without reading limitations into the claim.**
> **Thus, a broadest reasonable interpretation of the first limitation, preprocessing by accessing a hash table does not require anything be returned.[21]**

Appellant's specification clearly provides the examiner guidance with respect to "preprocessing." Starting at page 7, line 7 "Referring now to FIGS. 2A-2D, preprocessing 30 to precompute 32 a first hash table 37a to produce a list 38a of gateway cities {C2} (FIG. 2B), to precompute 34 a second hash table 37b to produce a second list 38b of gateway cities {C3} (FIG. 2C), and to precompute 36 a third hash table 37c to produce a list 38a of interior cities {C4} (FIG. 2D) is shown." and continuing to page 8, line 25 is provided an extensive discussion of preprocessing.

Claim 52 specifically requires: "accessing a first hash table structure ... to return a list of gateway cities for which an airline has arbitraries that specify the interior city, ..." so on its face, claim 52 does require something, instructions to return a list of "gateway cities for which an airline has arbitraries that specify the interior city."

In construing claim 52, to give the claim the broadest reasonable interpretation consistent with the supporting description the Examiner ignores guidance from the Federal Circuit in *In re Morris*[22] on what constitutes "reasonable" interpretation:

[21] Examiner's Answer page 54.

> "Since it would be unreasonable for the PTO to ignore any interpretive guidance afforded by the applicant's written description, either phrasing connotes the same notion: as an initial matter, the PTO applies to the verbiage of the proposed claims the broadest reasonable meaning of the words in their ordinary usage as they would be understood by one of ordinary skill in the art, *taking into account whatever enlightenment by way of definitions or otherwise that may be afforded by the written description* contained in the applicant's specification." [emphasis supplied]

The examiner has not provided any reasonable basis upon which one of ordinary skill in the art would construe claim 52 as devoid of returning anything. Indeed, although the examiner acknowledges the role of Appellant's specification, the Examiner in construing the claim appears to deliberately ignore it. In addition, the examiner also chooses to deliberately ignore the limitations of claim 52, namely to return a list of gateway cities for which an airline has arbitraries that specify the interior city. Indeed, claim 52 requires that accessing return something and therefore, the examiner's reasoning is in error.

For these reasons, and the reasons stated in the Appeal Brief, Applicant submits that the final rejection should be reversed.

[22] *In re Morris*, 127 F.3d 1048 (Fed. Cir. 1997).

Applicant : David M. Baggett
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Page : 16

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Respectfully submitted,

Date: 1/03/2007

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